1) a) Rhombus: 120° - Can be found by understanding that opposite angles are equal.

b) Isosceles Trapezium: 65° - Can be found by understanding that the base angles are equal.

c) Square: 90° - Can be found by understanding that all angles in a square are right angles.

d) Kite: 110° and 50° - 110° can be found by understanding that diagonally opposite angles are equal in a kite. 50° can be found by: 360° - (90°+ 110°+110° ).

2) a) 68°

b) Both missing angles are 138°

c) 106°

d) a) 101 °

b) 84 °

c) 63 °

1) The first reason is that angles in a quadrilateral add to 360° and the angles in this kite add to 356°.
The second reason is that opposite angles in this kite shape are equal but Monika's angle measurements are not equal.

2) 147° and 112° are the missing angles.

3) a) Could not belong to the parallelogram as there is not two sets of equal angles.

b) Could belong to the parallelogram as the angles add to 360° and it has two sets of equal angles.

c) Could not belong to the parallelogram as the angles add to 358° not 360°.

1) Each of the angles will measure 78°.

2) Angle $x$ = 45°
There are 8 kites therefore angle $x$ can be worked out using understanding that angles around a point add to 360° and by then using the calculation:
360°÷8 = 45°
Angle $y$ = 112.5°
360° - (45°+90°) = 245°
245° ÷ 2 (as the kite has equal, diagonally opposite angles) = 112.5°

3) All missing angles can be worked out from using the three angles that are given and the right angles.

$a$ = 90 °
$b$ = 90 °
$c$ = 109 °
$d$ = 71 °
$e$ = 50 °
$f$ = 112 °
$g$ = 59 °
$h$ = 112 °
$i$ = 121 °
$j$ = 90 °
$k$ = 90 °
$l$ = 90 °
$m$ = 90 °